S13 Table: Marvin and Perten Seed Data. Means and standard errors of various seed traits measured in six independent GT43_1 RNAi wheat lines and their corresponding Null lines. Single grain weight, Hardness Index, grain diameter and grain moisture were measured on 300 grains using the Perten Model Single Kernel Characterisation System 4100 following the manufacturer's operating procedure (Perten Instruments, Calibre Control International Ltd, 5-6 Asher Court, Lyncastle Way, Appleton, Warrington, WA4 4ST, UK). Grain, length, width and area were measured using the Marvin system Digital Seed Analyser (CGTA Sensorik GmbH, Lindenstrasse 63, D-17033, Neubrandenburg, Germany) on 100 grains. Three biological replicates measured per line.

Plant line / **Seed Traits**	**L1**	**N1**	**L2**	**N2**	**L3**	**N3**	**L4**	**N4**	**L5**	**N5**	**L6**	**N6**
Single Grain Weight (mg) % control	47.8 ±0.67 (94.9%)	50.33 ±1.33	45.1 ±1.40 (106%)	42.4 ±1.70	41.38 ±2.68 (105%)	39.23 ±3.47	46.37 ±0.27 (108%)	42.93 ±2.35	41.67 ±1.90 (94%)	45.43 ±1.77	39.66 ±3.18 (92.7%)	42.77 ±1.22
Grain length (mm) % control	6.924 ±0.11 (99.8%)	6.915 0.080	6.886 ±0.093 (104%)	6.623 ±0.075	6.861 ±0.124 (99.3%)	6.909 ±0.053	7.037 ±0.04 (102%)	6.88 ±0.11	6.69 ±0.09 (99.7%)	6.71 ±0.145	6.57 ±0.11 (98.5%)	6.67 ±0.052
Grain width (mm) % control	3.837 ±0.071 (96.6%)	3.9706 ±0.081	3.842 ±0.051 (102%)	3.775 ±0.085	3.690 ±0.046 (101%)	3.663 ±0.11	3.813 ±0.025 (100%)	3.80 ±0.13	3.72 ±0.058 (97.9%)	3.80 ±0.054	3.58 ±0.091 (95.7%)	3.74 ±0.094
Grain area (mm^2) % control	20.694 ±0.47 (95.2%)	21.732 ±0.72	20.727 ±0.45 (106%)	19.60 ±0.65	19.833 ±0.24 (101%)	19.712 ±0.87	21.35 ±0.17 (105%)	20.29 ±1.03	19.44 ±0.398 (97.2%)	20.00 ±0.41	18.56 ±0.78 (94.7%)	19.59 ±0.64
Grain Hardness Index % control	68.00 ±0 86%	78.67 ±0.67	75.33 ±0.33 91%	82.66 ±1.66	75.33 ±3.28 90%	83.33 ±3.76	69.33 ±2.02 87%	80.00 ±2.08	77.33 ±2.18 117%	66.00 ±1.00	77.00 ±2.32 94%	82.33 ±1.33
Grain diameter (mm) % control	3.24 ±0.026 (99%)	3.27 ±0.030	3.21 ±0.057 (105%)	3.03 ±0.094	3.04 ±0.008 (101%)	3.02 ±0.11	3.32 ±0.148 (106%)	3.13 ±0.988	3.08 ±0.071 (97.4%)	3.16 ±0.037	3.01 ±0.098 (96.7%)	3.11 ±0.065
Grain moisture (%) % control	11.26 ±0.067 99%	11.3 ±0	10.97 ±0.033 98%	11.13 ±0.067	10.83 ±0.120 97%	11.17 ±0.133	10.76 ±0.033 96%	11.20 ±0.057	11.10 ±0 100%	11.00 ±0.124	10.96 ±0.088 99%	11 ±0.057